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Abstract of the Disclosure

5 A method of protecting a subject against an agent that  
elicits production of toxic free radicals, superoxide anions, or  
heavy metal cations in the subject is disclosed which entails in  
vivo administration to the subject of a polynucleotide encoding  
a protein that is transiently expressed in said subject. The  
transiently expressed protein is capable of neutralizing or  
eliminating the toxic free radicals, superoxide anions or heavy  
10 metal cations that are elicited by the agent. The method is  
particularly useful in protecting cancer patients against the  
damaging effects of ionizing radiation and chemotherapeutic  
drugs. A composition useful in carrying out the method also is  
disclosed.